California Regional Water Quality Control Board
San Francisco Bay Region

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Date: FEB 28 2003
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Certufued Mail No. 70022410000265005202

Mr. Robert Davidson
STOPPP Coordinator
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SUBJECT: ADOPTED ORDER AMENDING THE SAN MATEO COUNTY MUNICIPAL STORMWATER PERMIT, NEW AND REDEVELOPMENT PROVISION, SAN MATEO COUNTY

Dear Mr. Davidson:

On February 19, 2003, the Regional Water Quality Control Board, San Francisco Bay Region, adopted an amendment to the San Mateo Countywide Stormwater Pollution Prevention Program NPDES Permit, Order NO. 99-059. We thank you, the Program, and the permittee staff for all the work toward improving the enclosed Order and making it something we can all support. We intend to continue the dialogue on how to best make this Order work, and will keep you posted on when we will hold our next open public meeting on new and redevelopment controls.

If you have any questions, please contact Habte Kifle of my staff at (510) 622-2371 or e-mail hk@rb2.swrcb.ca.gov.

Sincerely,

Loretta K. Barsamian
Executive Officer

Enclosure: Adopted NPDES Permit Amendment, Order R2-2003-0023

cc (with enclosures): Mailing List

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION
SAN MATEO COUNTYWIDE NPDES MUNICIPAL STORMWATER PERMIT AMENDMENT

ORDER NO. R2-2003-0023
AMENDING ORDER NO. 99-059
NPDES PERMIT NO. CAS0029921

FOR THE CITY/COUNTY ASSOCIATION OF GOVERNMENTS (C/CAG) OF SAN MATEO COUNTY, SAN MATEO COUNTY, TOWN OF ATHERTON, CITY OF BELMONT, CITY OF BRISBANE, CITY OF BURLINGAME, TOWN OF COLMA, CITY OF DALY CITY, CITY OF EAST PALO ALTO, CITY OF FOSTER CITY, CITY OF HALF MOON BAY, TOWN OF HILLSBOROUGH, CITY OF MENLO PARK, CITY OF MILLBRAE, CITY OF PACIFICA, TOWN OF PORTOLA VALLEY, CITY OF REDWOOD CITY, CITY OF SAN BRUNO, CITY OF SAN CARLOS, CITY OF SAN MATEO, CITY OF SOUTH SAN FRANCISCO, AND THE TOWN OF WOODSIDE, WHICH HAVE JOINED TOGETHER TO FORM THE SAN MATEO COUNTYWIDE STORMWATER POLLUTION PREVENTION PROGRAM

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER – R2-2003-0023
NPDES PERMIT NO. CAS0029921

AMENDMENT REVISING PROVISION C.3 OF ORDER NO. 99-059 FOR:

CITY/COUNTY ASSOCIATION OF GOVERNMENTS (C/CAG) OF SAN MATEO COUNTY, SAN MATEO COUNTY, TOWN OF ATHERTON, CITY OF BELMONT, CITY OF BRISBANE, CITY OF BURLINGAME, TOWN OF COLMA, CITY OF DALY CITY, CITY OF EAST PALO ALTO, CITY OF FOSTER CITY, CITY OF HALF MOON BAY, TOWN OF HILLSBOROUGH, CITY OF MENLO PARK, CITY OF MILLBRAE, CITY OF PACIFICA, TOWN OF PORTOLA VALLEY, CITY OF REDWOOD CITY, CITY OF SAN BRUNO, CITY OF SAN CARLOS, CITY OF SAN MATEO, CITY OF SOUTH SAN FRANCISCO, AND THE TOWN OF WOODSIDE, which have joined together to form the SAN MATEO COUNTYWIDE STORMWATER POLLUTION PREVENTION PROGRAM.

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter referred to as the Regional Board) finds that:

FINDINGS

Finding 1: Incorporation of Fact Sheet

1. The Fact Sheet for the San Mateo Countywide Stormwater Pollution Prevention Program NPDES Permit Amendment includes cited references and additional explanatory information in support of the requirements of this Amendment. This information, including any supplements thereto, and any future response to comments on the Revised Tentative Order, is hereby incorporated by reference.

Findings 2-3: Existing Permit

2. The Regional Board adopted Order No. 99-059 on July 21, 1999, reissuing waste discharge requirements under the National Pollutant Discharge Elimination System (NPDES) permit for the City and County Association of San Mateo County, San Mateo County, and the twenty cities and towns in the County, as named above; hereinafter referred to collectively as the Dischargers and individually as the Discharger.

3. Order No. 99-059 recognizes the San Mateo Countywide Stormwater Pollution Prevention Program's (hereinafter STOPPP) Stormwater Management Plan (Management Plan) as the Dischargers' comprehensive control program and requires implementation of the Management Plan, which describes a framework for management of stormwater discharges. The 1999 Management Plan describes the Program's goals and objectives and contains Performance Standards, which represent the baseline level of effort required of each of the Dischargers. The Management Plan contains Performance Standards for five different stormwater management components, including new development and significant redevelopment activities.

Finding 4: Basis for Reopening the Permit for Amendment

4. This Order amends existing Order No. 99-059 for Waste Discharge Requirements, NPDES Permit No. CAS0029921 (the "Existing Permit"), to require additional treatment controls to limit stormwater pollutant discharges associated with certain new development and significant redevelopment projects. Pursuant to applicable state and federal law, including without limitation Water Code § 13263 and 40 CFR § 123.25(a), the Board may modify the Existing Permit to require additional and more stringent controls during the term of the Existing Permit. Provision C.13 of Order No. 99-059 anticipated that amendments, revisions and modifications to the Management Plan and Existing Permit would be necessary from time to time, and provided direction that changes requiring major revisions of the Management Plan shall be brought before the Regional Board as permit amendments. This Order is consistent with Provision C.13 of Order No. 99-059.

   The additional treatment controls are appropriate to impose now to better reflect, and be consistent with, the current level of protection being instituted elsewhere in the Region, State and country to satisfy the Clean Water Act's requirement to control discharges of pollutants to the maximum extent practicable. For instance, other states and regions require that stormwater treatment measures are sized to treat an optimal volume or flow rate of stormwater runoff based on local precipitation, that the treatment measures be adequately maintained, and that the damaging effects of increased runoff peak flows and durations also be addressed, in addition to runoff pollutant impacts.

Finding 5: Applicable Federal, State and Regional Regulations

5. This action to modify an NPDES permit is exempt from the provisions of the California Environmental Quality Act (Division 13 of the Public Resources Code, Chapter 3, Section 21100, et. seq.) in accordance with Section 13389 of the California Water Code.

Findings 6-18: Nature of Discharges and Sources of Pollutants

6. Urban Development Increases Pollutant Load, Volume, and Velocity of Runoff: During urban development two important changes occur. First, natural vegetated pervious ground cover is converted to impervious surfaces such as paved highways, streets, rooftops, and parking lots. Natural vegetated soil can both absorb rainwater and remove pollutants providing a very effective natural purification process. Because pavement and concrete can neither absorb water nor remove pollutants, the natural purification characteristics of the land are lost. Secondly, urban development creates new pollution sources as human population density increases and brings with it proportionately higher levels of car emissions, car maintenance wastes, municipal sewage, pesticides, household hazardous wastes, pet wastes, trash, etc., which can be washed into the municipal separate storm sewer system. As a result of these two changes, the runoff leaving the developed urban area is significantly greater in volume, velocity and pollutant load than the pre-development runoff from the same area.

7. Certain pollutants present in stormwater and/or urban runoff may be derived from extraneous sources that the Dischargers have limited or no direct jurisdiction over. Examples of such pollutants and their respective sources are: PAHs which are products of internal combustion engine operation and other sources; heavy metals, such as copper from brake pad wear and zinc from tire wear; dioxins as products of combustion; mercury resulting from atmospheric deposition; and natural-occurring minerals from local geology. All of these pollutants, and

others, may be deposited on paved surfaces and roof-tops as fine airborne particles, thus yielding stormwater runoff pollution that is unrelated to the particular activity or use associated with a given new or redevelopment project. However, Dischargers can implement treatment control measures, or require developers to implement treatment control measures, to reduce entry of these pollutants into stormwater and their discharge to receiving waters.

8. Retail gasoline outlets (RGOs), commonly referred to as "gas stations," are hot spots for pollutants of concern in stormwater and have been widely documented as such. The most common pollutants of concern in stormwater runoff from RGOs are heavy metals, petroleum hydrocarbons (such as Polycyclic Aromatic Hydrocarbons (PAHs)), and oil and grease.[1] RGOs fall within the new development and significant redevelopment projects subject to Provision C.3 of this Order, when they meet the impervious surface thresholds within that Provision. Pursuant to Provision C.3, as with any other project meeting the thresholds of that Provision, RGOs are required to incorporate appropriate source controls and design measures, and to appropriately treat stormwater runoff prior to discharge to the storm drain or local water. As with any commercial and/or industrial activity within the Dischargers' jurisdictions that has the potential to discharge pollutants in stormwater runoff, RGOs may also be subject to regulation under other sections of the Existing Permit and incorporated Management Plan, including the Illicit Discharge Control and Industrial and Commercial Discharge Control sections.

9. The pollutants found in urban runoff can have damaging effects on both human health and aquatic ecosystems. In addition, the increased flows and volumes of stormwater discharged from new impervious surfaces resulting from new development and redevelopment can significantly impact beneficial uses of aquatic ecosystems due to physical modifications of watercourses, such as bank erosion and widening of channels.

10. Water Quality Degradation Increases with Percent Imperviousness: The increased volume and velocity of runoff from developed urban areas can greatly accelerate the erosion of downstream natural channels. A number of studies have demonstrated a direct correlation between the degree of imperviousness of an area and the degradation of beneficial uses of downstream receiving waters. Significant declines in the biological integrity and physical habitat of streams and other receiving waters have been found to occur with as little as a 10% conversion from natural to impervious surfaces. Typical medium-density single-family home projects range between 25 to 60% impervious. Even at very low densities, such as 1-2 housing units per acre, standard subdivision designs can exceed the 10% imperviousness threshold that, as noted above, is theorized to be the threshold for degradation of streams and other waters with increasing imperviousness.[2] Studies on the impacts of imperviousness on beneficial uses of waters include "Urbanization of aquatic systems: Degradation thresholds, stormwater detection, and the limits of mitigation," Derek B. Booth and C. Rhett Jackson, Journal of the American Water Resources Association 33(5), Oct. 1997, pp. 1077-1089;

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[1] *Retail Gasoline Outlets: New Development Design Standards for Mitigation of Stormwater Impacts* – California Water Quality Control Board, Los Angeles Region, and California Water Quality Control Board, San Diego Region, Technical Report, prepared by Radulescu, Swamikannu, and Hammer, 2001.

[2] A discussion of imperviousness based on type of development and time of construction is provided in Heaney, J.B., Pitt, R, and Field, R. **Innovative Urban Wet-Weather Flow Management Systems**, 1999. USEPA Doc. No. EPA/600/R-99/029 (Chapter 2).

"Urbanization and Stream Quality Impairment," Richard D. Klein, Water Resources Bulletin 15(4), Aug. 1979, pp. 948-963; "Stream channel enlargement due to urbanization," Thomas R. Hammer, Water Resources Research 8(6), Dec. 1972, pp. 1530- 1540; and, summaries of work on the impacts of imperviousness, including "The Importance of Imperviousness," in Watershed Protection Techniques 1(3), Fall 1994, pp. 100-111, and "Impervious surface coverage: The emergence of a key environmental indicator," Chester L. Arnold et al., Journal of the American Planning Association 62(2), Spring 1996, pp. 243-259.

11. The Dischargers have encouraged developers to minimize increases in impervious surfaces through a number of techniques such as those described in the Bay Area Stormwater Management Agencies Association's (BASMAA's) "Start at the Source Design Guidance Manual for Stormwater Quality Protection," 1999 edition (Start at the Source). One of the techniques recommended by Start at the Source is to use permeable pavements to infiltrate stormwater while still providing a stable load-bearing surface. For purposes of this Order, STOPPP may submit guidelines for use of these techniques for minimizing increases in impervious surfaces described in Start at the Source, implementation of which will provide that such areas will not count toward the creation or replacement of impervious surfaces, or may be modeled differently for the purposes of sizing post-construction stormwater treatment controls, for approval by the Executive Officer.

12. Because land use planning is where urban development begins, it is the phase in which the greatest and most cost-effective opportunities to protect water quality in new and redevelopment exist. When a Discharger incorporates policies and principles designed to safeguard water resources into its General Plan and development project approval processes, it has taken a far-reaching step towards the preservation of local water resources for future generations.

13. The revised Provision C.3 is written with the assumption that the Dischargers are responsible for considering potential stormwater impacts when making planning and land use decisions. The goal of these requirements is to address pollutant discharges and changes in runoff flows from new development and significant redevelopment projects, through implementation of post-construction and treatment measures, source control, and site design measures, to the maximum extent practicable. Neither Provision C.3 nor any of its requirements are intended to restrict or control local land use decision-making authority.

14. For the purposes of this Order, the term "Redevelopment" is defined as a project on a previously developed site that results in the addition or replacement of impervious surfaces, and the term "brownfield site" means real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.

15. Opportunities to address stormwater pollution and hydrograph modification can be limited by current local design standards and guidance. For example, such standards and guidance may reduce or prohibit opportunities to minimize impervious surfaces, minimize directly connected impervious area, provide for small-scale detention, and implement other management measures. Revision of current standards and guidance can result in a significantly increased ability for project designers to minimize project impacts and can also enhance local property values, neighborhood character, and overall quality of life. Further,

revision of standards and guidance can allow implementation of site design measures in projects to meet or help meet the numeric sizing criteria in Provision C.3.d and/or the hydrograph modification limitation in Provision C.3.f.

16. Certain control measures implemented or required by the Dischargers for urban runoff management may create a habitat for vectors (e.g., mosquitoes and rodents) if not properly designed or maintained. Close collaboration and cooperative effort between Dischargers, local vector control agencies, Regional Board staff, and the State Department of Health Services is necessary to minimize potential nuisances and public health impacts resulting from vector breeding.

17. Provision C.3.f requires the Dischargers to prepare a Hydrograph Modification Management Plan (HMP), for approval by the Regional Board, to manage impacts from changes to the volume and velocity of stormwater runoff from new development and significant redevelopment projects, where these changes can cause excessive erosion damage to downstream watercourses. Transit village type developments within ¼ to within ½ mile of transit stations and/or intermodal facilities, and projects within "Redevelopment Project Areas" (as defined by Health and Safety Code Section 33000, et. seq.) that redevelop an existing brownfield site or create housing units affordable to persons of low or moderate income as defined by Health and Safety Code Section 50093, are excepted from the requirements of C.3.f. and the HMP. Significant change in impervious surface or significant change in stormwater runoff volume or timing is unlikely in these redevelopment circumstances, because the development would be within a largely paved catchment, and on a site that is largely paved or otherwise impervious.

Similarly, as specified in Provision C.3.g.v, an exemption without the requirement for alternate, equivalent offsite treatment is allowed for the following redevelopment projects after impracticability of including onsite treatment measures is established, where such projects are built as redevelopment projects as defined in Finding 14, and it is clearly demonstrated that cost of participation in alternate, equivalent offsite treatment through a regional treatment or other equivalent water quality benefit project fund will unduly burden the project: creation of housing units affordable to persons of low or moderate income as defined by Health and Safety Code Section 50093, brownfield sites, and/or transit village type developments within ¼ mile of transit stations and/or intermodal facilities. Not only is significant change in impervious surface or significant change in stormwater runoff volume or timing unlikely in these redevelopment circumstances, but these development projects are also likely to provide reduced water quality impacts and/or other environmental benefits in their own right.

18. The Regional Board recognized, in its "Policy on the Use of Constructed Wetlands for Urban Runoff Pollution Control" (Resolution No. 94-102), that urban runoff treatment wetlands that are constructed and operated pursuant to that Resolution and are constructed outside of a creek or other receiving water, are stormwater treatment systems and, as such, are not waters of the United States subject to regulation pursuant to Sections 401 or 404 of the federal Clean Water Act. Regional Board staff is working with the California Department of Fish and Game (CDFG) and the U.S. Fish and Wildlife Service (USFWS) to identify how maintenance for stormwater treatment controls required under permits such as this Permit can be

appropriately streamlined, given CDFG and USFWS requirements, and particularly those that address special status species. The Dischargers are expected to work diligently and in good faith with the appropriate agencies to obtain any approvals necessary to complete maintenance activities for stormwater treatment and runoff controls. If the Dischargers have done so, where necessary and maintenance approvals are not granted, the Dischargers shall be deemed by the Regional Board to be in compliance with Provision C.3.e of this Order.

Findings 19 - 20: Notification to Dischargers and Interested Public Parties

19. The Dischargers and interested agencies and persons have been notified of the Regional Board's intent to modify waste discharge requirements for the existing discharge and have been provided opportunities for public meetings and the opportunity to submit their written views and recommendations. The following is a brief summary of public meetings and comment periods on versions of the Tentative Order:

Public Meetings and Outreach Events:

The Dischargers and Regional Board staff together conducted an outreach workshop on the Tentative Order and the updated new development and redevelopment requirements. This workshop was held on March 29, 2002, and was attended by Discharger staff and other interested parties. The Executive Officer and Regional Board staff also met with the San Mateo County City Managers' Association on May 17, 2002, to advise them of the updated new development and redevelopment requirements. Regional Board staff also met on dates including April 23, May 22, and October 30, 2002, with representatives of the Coastal Region Vector Control Agencies, which includes San Mateo County. On September 12, 2002, the Assistant Executive Officer spoke to City/County Association of Governments of San Mateo County representatives and elective officials at their regular monthly meeting, about the status of the updated new development and redevelopment requirements and addressed questions raised by the officials.

Other public outreach activities also have included:

- On March 8, 2001, the Association of Bay Area Governments (ABAG) hosted a seminar for elected officials, municipal planning directors and public works directors, and other public on upcoming regulatory approaches to controlling stormwater pollution from new and redevelopment projects;
- On January 10, 2002, ABAG, the Regional Board, BASMAA, BCDC, and the City of Oakland hosted a seminar for local and regional government officials, city managers, county administrators, municipal planning directors and public works directors, and other public on stormwater pollution control measures and successful redevelopment strategies to ensure clean runoff from development projects;
- On March 21, 2002, the Executive Officer spoke to ABAG's Executive Board, which included elected officials from San Mateo County, about the status of updated regulations for stormwater control measures for new and redevelopment projects; and
- On June 5, 2002, the Regional Board's South Bay Watershed Management Division Chief spoke to ABAG's Regional Planning Committee, which included elected officials from San Mateo County, about the status of updated regulations for stormwater control

measures for new and redevelopment projects, and addressed questions raised by officials at the March 21, 2002, presentation to ABAG's Executive Board.

- On December 18, 2002, and January 22, 2003, the Regional Board heard testimony from the Dischargers and interested public on the Revised Tentative Order.

- On January 17 and 31, and February 7 and 14, 2003, Regional Board staff conducted public meetings on the Revised Tentative Order.

Review and Comment Periods:

- June 13, 2002 – July 26, 2002: Administrative Draft circulated to the Dischargers for comments.
- August 22, 2002 – October 9, 2002: Tentative Order circulated to the Dischargers, the general public and interested parties for comments.
- December 20, 2002 – January 10, 2003: Comment period reopened by the Regional Board to allow additional submittals relative to projected cost of the amendment of Order No. 99-059 to both the Dischargers and the development community.

20. The Regional Board, through public testimony in public meetings and in written form, has received and considered all comments pertaining to the amendment of Order No. 99-059.

Finding 21: Renumbering of Existing Provisions within Order No. 99-059

21. Provision C.3 of Order No. 99-059 stipulates Stormwater Management Plan requirements. Upon adoption of this Order, Provision C.3 will address New Development and Redevelopment Performance Standards, and existing provisions C.3 – C.17 will be renumbered C.4 – C.18 in the Existing Permit.

IT IS HEREBY ORDERED that the Dischargers, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted hereunder and the provisions of the Clean Water Act as amended and regulations and guidelines adopted hereunder, shall comply with the following:

Provision C.3. New Development and Redevelopment Performance Standards

The Dischargers will continue to implement the new development and redevelopment Performance Standards contained in the Management Plan and improve them to achieve the control of stormwater pollutants to the maximum extent practicable in accordance with the following sections:

a. New Development and Redevelopment Performance Standard Implementation:

The Dischargers shall continue to implement and improve, as necessary and appropriate, the Performance Standards for new development and redevelopment controls detailed on Pages

B-ND-1 through B-ND-4 of the July 1999 Management Plan. In addition, the Dischargers shall implement the following Performance Standards:

i. Each Discharger shall ensure access to treatment measures to San Mateo Mosquito and Vector Control District staff; and

ii. Each Discharger shall provide educational materials to municipal staff, developers, contractors, construction site operators, and owner/builders, early in the planning process and as appropriate.

b. Development Project Approval Process:

The Dischargers shall modify their project review processes as needed to incorporate the requirements of Provision C.3. Each Discharger shall include conditions of approval in permits for applicable projects, as defined in Provision C.3.c, to ensure that stormwater pollutant discharges are reduced by incorporation of treatment measures and other appropriate source control and site design measures, and increases in runoff flows are managed in accordance with Provision C.3.f, to the maximum extent practicable. Such conditions shall, at a minimum, address the following goals:

i. Require a project proponent to implement site design/landscape characteristics where feasible which maximize infiltration (where appropriate), provide retention or detention, slow runoff, and minimize impervious land coverage, so that post-development pollutant loads from a site have been reduced to the maximum extent practicable; and

ii. For new and redevelopment projects that discharge directly (not mixed with runoff from other developed sites) to water bodies listed as impaired by a pollutant(s) pursuant to Clean Water Act Section 303(d), ensure that post-project runoff does not exceed pre-project levels for such pollutant(s), through implementation of the control measures addressed in this provision, to the maximum extent practicable, in conformance with Provision C.1.

Modification of project review processes shall be completed by **February 15, 2005**.

c. Applicable Projects – New and Redevelopment Project Categories:

New development and significant redevelopment projects that are subject to Provision C.3. are grouped into two categories based on project size. While all projects regardless of size should consider incorporating appropriate source control and site design measures that minimize stormwater pollutant discharges to the maximum extent practicable, new and redevelopment projects that do not fall into Group 1 or Group 2 are not subject to the requirements of Provision C.3. Provision C.3. shall also not apply to projects for which a privately sponsored development application has been deemed complete by a Discharger or, with respect to public projects, for which funding has been committed and for which construction is scheduled by **February 15, 2005**.

i. Group 1 Projects:

Dischargers shall require Group 1 Projects to implement appropriate source control and site design measures and to design and implement stormwater treatment measures, to reduce the discharge of stormwater pollutants to the maximum extent practicable. Implementation of

this requirement shall begin **February 15, 2005.** Group 1 Projects consist of all public and private projects in the following categories:

1. *Commercial, industrial, or residential developments that create one acre (43,560 square feet) or more of impervious surface, including roof area, streets and sidewalks.* This category includes any development of any type on public or private land, which falls under the planning and building authority of the Dischargers, where one acre or more of new impervious surface, collectively over the entire project site, will be created. Construction of one single-family home, which is not part of a larger common plan of development, with the incorporation of appropriate pollutant source control and design measures, and using landscaping to appropriately treat runoff from roof and house-associated impervious surfaces (e.g., runoff from roofs, patios, driveways, sidewalks, and similar surfaces), would be in substantial compliance with Provision C.3.
2. *Streets, roads, highways, and freeways that are under the Dischargers' jurisdiction and that create one acre (43,560 square feet) or more of new impervious surface.* This category includes any newly constructed paved surface used primarily for the transportation of automobiles, trucks, motorcycles, and other motorized vehicles. Excluded from this category are sidewalks, bicycle lanes, trails, bridge accessories, guardrails, and landscape features.
3. *Significant Redevelopment projects.* This category is defined as a project on a previously developed site that results in addition or replacement, which combined total 43,560 ft^2 or more of impervious surface on such an already developed site ("Significant Redevelopment"). Where a Significant Redevelopment project results in an increase of, or replacement of, more than fifty percent of the impervious surface of a previously existing development, and the existing development was not subject to stormwater treatment measures, the entire project must be included in the treatment measure design. Conversely, where a Significant Redevelopment project results in an increase of, or replacement of, less than fifty percent of the impervious surface of a previously existing development, and the existing development was not subject to stormwater treatment measures, only that affected portion must be included in treatment measure design. Excluded from this category are interior remodels and routine maintenance or repair. Excluded routine maintenance and repair include roof or exterior surface replacement, pavement resurfacing, repaving and road pavement structural section rehabilitation within the existing footprint, and any other reconstruction work within a public street or road right-of-way where both sides of that right-of-way are developed.

ii. Group 2 Projects:

The Group 2 Project definition is in all ways the same as the Group 1 Project definition above, except that the size threshold of impervious area for new and Significant Redevelopment projects is reduced from one acre (43,560 ft^2) of impervious surface to 10,000 square feet. Dischargers shall require Group 2 Projects to implement appropriate source control and site design measures and to design and implement appropriate stormwater treatment measures, to reduce stormwater pollution to the maximum extent practicable. Projects consisting of one single family home not part of a larger common plan of development are excluded from the Group 2 Project definition, and therefore excluded from

the requirement to implement appropriate stormwater treatment measures. Implementation of this requirement shall begin by **August 15, 2006**, at which time the definition of Group 1 Project is changed to include all Group 2 Projects.

iii. **Proposal for Alternative Group 2 Project Definition:** The Program and/or any Discharger may propose, for approval by the Regional Board, an Alternative Group 2 Project definition, with the goal that any such alternative definition aim to ensure that the maximum created impervious surface area is treated for the minimum number of projects subject to Discharger review. Any such proposal shall contain supporting information about the Dischargers' development patterns, and sizes and numbers of proposed projects for several years, that demonstrates that the proposed definition would be substantially as effective as the Group 2 Project definition in Provision C.3.c.ii. Proposals may include differentiating projects subject to the Alternative Group 2 Project definition by land use, by focusing solely on the techniques recommended by Start at the Source for documented low pollutant loading land uses, and/or by optimum use of landscape areas required by Dischargers under existing codes as treatment measures. Proposals may be submitted anytime, with the understanding that the Group 2 Project definition, as described in Provision C.3.c.ii will be upheld as the default in the absence of an approved Alternative Group 2 Project definition.

d. Numeric Sizing Criteria For Pollutant Removal Treatment Systems:

All Dischargers shall require that treatment measures be constructed for applicable projects, as defined in Provision C.3.c, that incorporate, at a minimum, the following hydraulic sizing design criteria to treat stormwater runoff. As appropriate for each criterion, the Dischargers shall use or appropriately analyze local rainfall data to be used for that criterion.

i. **Volume Hydraulic Design Basis:** Treatment measures whose primary mode of action depends on volume capacity, such as detention/retention units or infiltration structures, shall be designed to treat stormwater runoff equal to:

1. The maximized stormwater capture volume for the area, based on historical rainfall records, determined using the formula and volume capture coefficients set forth in *Urban Runoff Quality Management, WEF Manual of Practice No. 23/ ASCE Manual of Practice No. 87, (1998)*, pages 175-178 (e.g., approximately the 85th percentile 24-hour storm runoff event); or

2. The volume of annual runoff required to achieve 80 percent or more capture, determined in accordance with the methodology set forth in Appendix D of the *California Stormwater Best Management Practices Handbook, (1993)*, using local rainfall data.

ii. **Flow Hydraulic Design Basis:** Treatment measures whose primary mode of action depends on flow capacity, such as swales, sand filters, or wetlands, shall be sized to treat:

1. 10% of the 50-year peak flow rate; or

2. the flow of runoff produced by a rain event equal to at least two times the 85th percentile hourly rainfall intensity for the applicable area, based on historical records of hourly rainfall depths; or

3. the flow of runoff resulting from a rain event equal to at least 0.2 inches per hour intensity.

e. Operation and Maintenance of Treatment Measures:

All treatment measures must be adequately operated and maintained by complying with the process described below. Beginning July 1, 2004, each Discharger shall implement a treatment measures operation and maintenance (O&M) verification program (O&M Program), which shall include the following:

i. Compiling a list of properties (public and private) and responsible operators for, at a minimum, all treatment measures implemented from the date of adoption of this Order. Information on the location of all stormwater treatment measures shall be sent to the local vector control district. In addition, the Dischargers shall inspect a subset of prioritized treatment measures for appropriate O&M, on an annual basis, with appropriate follow-up and correction.

ii. Verification and access assurance shall at a minimum include: Where a private entity is responsible for O&M, the entity's signed statement accepting responsibility for maintenance until the responsibility is legally transferred to another entity; and access permission for representatives of the Discharger, local vector control district, and Regional Board staff strictly for the purpose of O&M verification for the specific stormwater treatment system to the extent allowable by law; and, for all entities, either:

1. A signed statement from the public entity assuming post-construction responsibility for treatment measure maintenance and that the treatment measure meets all local agency design standards; or
2. Written conditions in the sales or lease agreement requiring the buyer or lessee to assume responsibility for O&M consistent with this provision, which conditions, in the case of purchase and sale agreements, shall be written to survive beyond the close of escrow; or
3. Written text in project conditions, covenants and restrictions (CCRs) for residential properties assigning O&M responsibilities to the home owners association for O&M of the treatment measures; or
4. Any other legally enforceable agreement or mechanism that assigns responsibility for the maintenance of post-construction treatment measures.

iii. O&M Reporting: The Dischargers shall report on their O&M Program in each Annual Report, starting with the Annual Report to be submitted **September, 2005**. The Annual Report shall contain: a description of the organizational structure of the Discharger's O&M Program; an evaluation of that O&M Program's effectiveness; summary of any planned improvements to the O&M Program; and a list or summary of treatment measures that have been inspected that year with inspection results.

iv. The program shall submit by **June 1, 2004**, a vector control plan for Executive Officer approval, after consultation with the appropriate vector control agencies. The plan shall include design guidance for treatment measures to prevent the production of vectors, particularly mosquitoes, and provide guidance on including vector abatement concerns in O&M and verification inspection activities.

v. The Dischargers are expected to work diligently and in good faith with the appropriate state and federal agencies to obtain any approvals necessary to complete maintenance activities for

stormwater treatment measures. If the Dischargers have done so, and maintenance approvals are not granted, where necessary, the Dischargers shall be deemed by the Regional Board to be in compliance with this Provision.

f. Limitation on Increase of Peak Stormwater Runoff Discharge Rates:

i. The Dischargers shall manage increases in peak runoff flow and increased runoff volume, for all Group 1 Projects, where such increased flow and/or volume is likely to cause increased erosion of creek beds and banks, silt pollutant generation, or other waterbody impacts to beneficial uses due to increased erosive force. Such management shall be through implementation of a Hydrograph Modification Management Plan (HMP). The HMP, once approved by the Regional Board, shall be implemented so that post-project runoff shall not exceed estimated pre-project rates and/or durations, where the increased stormwater discharge rates and/or durations will result in increased potential for erosion or other significant adverse impacts to beneficial uses, attributable to changes in the amount and timing of runoff. The term duration in this Provision is defined as the period that flows are above a threshold that causes significant sediment transport and may cause excessive erosion damage to creeks and streams.

ii. Provision C.3.f.i does not apply to new development and significant redevelopment projects where the project discharges stormwater runoff into creeks or storm drains where the potential for erosion or other impacts to beneficial uses, is minimal. Such situations may include discharges into creeks that are concrete-lined or significantly hardened (e.g., with rip-rap, sackrete, etc.) downstream to their outfall in San Francisco Bay or the Pacific Ocean, underground storm drains discharging to the Bay or Ocean, and construction of infill projects in highly developed watersheds, where the potential for single-project and/or cumulative impacts is minimal. Guidelines for identification of such situations shall be included as a part of the HMP. However, plans to restore a creek reach may re-introduce the applicability of HMP controls, and would need to be addressed in the HMP.

iii. The HMP may identify conditions under which some increases in runoff may not have a potential for increased erosion or other impacts to beneficial uses. Reduced controls or no controls on peak stormwater runoff discharge rates and/or durations may be appropriate in those cases, subject to the conditions in the HMP. In the absence of information demonstrating that changes in post-development runoff discharge rates and durations will not result in increased potential for erosion or other adverse impacts to beneficial uses, the HMP requirements shall apply.

iv. The HMP proposal, at a minimum, shall include:

1. A review of pertinent literature;
2. A protocol to evaluate potential hydrograph change impacts to downstream watercourses from proposed projects;
3. An identification of the rainfall event below which these standards and management requirements apply, or range of rainfall events to which these requirements apply;
4. A description of how the Dischargers will incorporate these requirements into their local approval processes, or the equivalent; and,

5. Guidance on management practices and measures to address identified impacts.

The Dischargers may prioritize which individual watersheds the HMP would initially apply to, if it is demonstrated in the HMP that such prioritization is appropriate.

The Dischargers may work appropriately with the Santa Clara Valley Urban Runoff Pollution Prevention Program and other Bay Area storm water programs as part of completing these requirements. For example, the Dischargers may wish to expand on the literature review being completed by the Santa Clara Valley Urban Runoff Program under its Permit, rather than authoring their own literature review from scratch. While such cooperation is encouraged, it shall not be grounds for delaying compliance beyond the schedule set forth herein.

v. The identified maximum rainfall event or rainfall event range may be different for specific watersheds, streams, or stream reaches. Individual Dischargers may utilize the protocol to determine a site- or area-specific rainfall event or event range standard.

vi. The HMP's evaluation protocols, management measures, and other information may include the following:

1. Evaluation of the cumulative impacts of urbanization of a watershed on stormwater discharge and stream morphology in the watershed;
2. Evaluation of stream form and condition, including slope, discharge, vegetation, underlying geology, and other information, as appropriate;
3. Implementation of measures to minimize impervious surfaces and directly connected impervious area in new development and redevelopment projects;
4. Implementation of measures including stormwater detention, retention, and infiltration;
5. Implementation of land use planning measures (e.g., stream buffers and stream restoration activities, including restoration-in-advance of floodplains, revegetation, use of less-impacting facilities at the point(s) of discharge, etc.) to allow expected changes in stream channel cross sections, stream vegetation, and discharge rates, velocities, and/or durations without adverse impacts to stream beneficial uses;
6. A mechanism for pre- vs. post-project assessment to determine the effectiveness of the HMP and to allow amendment of the HMP, as appropriate; and,
7. Other measures, as appropriate.

vii. Equivalent limitation of peak flow impacts: The Dischargers may develop an equivalent limitation protocol, as part of the HMP, to address impacts from changes in the volumes, velocities, and/or durations of peak flows through measures other than control of those volumes and/or durations. The protocol may allow increases in peak flow and/or durations, subject to the implementation of specified design, source control, and/or treatment measures and land planning practices that take into account expected stream change (e.g., increases in the cross-sectional area of stream channel) resulting from changes in discharge rates and/or durations, while maintaining or improving beneficial uses of waters.

viii. The Dischargers as a group shall complete the HMP according to the schedule below. All required documents shall be submitted for approval by the Executive Officer, based on the

criteria set forth in this Order, except the HMP, which shall be submitted for approval by the Regional Board. Development and implementation status shall be reported in the Dischargers' Annual Reports, which shall also provide a summary of projects incorporating measures to address this Provision and the measures used.

1. **February 15, 2004**: Submit a detailed workplan and schedule for completion of the literature review, development of a protocol to identify an appropriate limiting storm, development of guidance materials, and other required information;
2. **February 15, 2004**: Submit literature review;
3. **November 15, 2004**: Submit a draft HMP, including the analysis that identifies the appropriate limiting storm and the identified limiting storm event(s) or event range(s);
4. **May 15, 2005**: Submit the HMP for Regional Board approval; and,
5. Upon approval by the Regional Board, implement the approved HMP, which shall include the requirements of this Provision. Prior to approval of the HMP by the Regional Board, the early implementation of measures likely to be included in the HMP shall be encouraged by the Dischargers.

g. Alternative Compliance Based on Impracticability and Requiring Compensatory Mitigation:

i. The Dischargers may establish a program under which a project proponent may request alternative compliance with the requirement in Provision C.3.c to install treatment measures onsite for a given project, upon an appropriate showing of impracticability, and with provision to treat offsite an equivalent surface area, pollutant loading or quantity of stormwater runoff, or provide other equivalent water quality benefit, such as stream restoration or other activities that limit or mitigate impacts from excessive erosion or sedimentation. The offsite location of this equivalent stormwater treatment, or water quality benefit, shall be where no other requirement in Provision C.3.c. for treatment exists, and within the same stormwater runoff drainage basin and treating runoff discharging to the same receiving water, where feasible. Under this Provision, enhancements of existing mitigation projects are acceptable. The Dischargers should specifically define the basis for impracticability or infeasibility, which may include situations where onsite treatment is technically feasible, but excessively costly, as determined by set criteria.

ii. Regional Solutions: The alternative compliance program may allow a project proponent to participate in a regional or watershed-based stormwater treatment facility, without a showing of impracticability on the individual project site, if the regional or watershed-based stormwater treatment facility discharges into the same receiving water, where feasible.

iii. The Program is encouraged to propose a model alternative compliance program on behalf of the Dischargers, for approval by the Regional Board, and for potential adoption and implementation by the Dischargers.

iv. The alternative compliance program proposal should state the criteria for granting alternatives from the requirement to install treatment measures onsite; criteria for determining impracticability or infeasibility; and criteria for use of regional or watershed-based stormwater treatment facilities. The proposal should also describe how the project

sponsor will provide equivalent water quality benefits or credit to an alternative project or to a regional or watershed-based treatment facility and tracking mechanisms to support the reporting requirements set forth in Provision C.3.g.v below.

v. An exemption without the requirement for alternate, equivalent offsite treatment is allowed for the following redevelopment projects after impracticability of including onsite treatment measures is established, where such projects are built as redevelopment projects as defined in Finding 14, and it is clearly demonstrated that cost of participation in alternate, equivalent offsite treatment through a regional treatment or other equivalent water quality benefit project fund will unduly burden the project: creation of housing units affordable to persons of low or moderate income as defined by Health and Safety Code Section 50093, brownfield sites, and/or transit village type developments within ¼ mile of transit stations and/or intermodal facilities.

vi. Reporting: Each year, as part of its Annual Report, each Discharger shall provide a list of the alternative projects and exemptions it granted. For each project and exemption, the following information shall be provided:

1. Name and location of the project for which the alternative project or exemption was granted;
2. Project type (e.g., restaurant, residence, shopping center) and size;
3. Area or percent of impervious surface in the project's final design;
4. Reason for granting the alternative project or exemption, including, for those projects granted an exemption without the requirement for alternate, equivalent offsite treatment, a demonstration that cost of such equivalent offsite treatment unduly burdened the project;
5. Terms of the alternative project or exemption; and,
6. The offsite stormwater treatment project receiving the benefit, and the date of completion of the project.

vii. Interim Alternative Compliance Program: In the event that an alternative compliance program has not been proposed by the Program and/or a Discharger, approved by the Regional Board, or implemented by a particular Discharger by the date of implementation of Group 1 Projects, provision for an interim alternative to the requirement to install treatment measures onsite may be granted by a Discharger. An interim alternative compliance project may be granted if the project proponent (1) demonstrates onsite impracticability due to extreme limitations of space for treatment and lack of below grade surface treatment options, and (2) presents sufficient assurance of providing equivalent offsite stormwater pollutant and/or volume treatment at another location within the drainage basin, for which construction of stormwater treatment measures is not otherwise required, discharging into the same receiving water, where feasible. The Discharger shall be responsible for assuring that equivalent offsite treatment has occurred for any use of this interim alternative compliance program, within six months of project construction, and shall report the basis of onsite impracticability and the nature of equivalent offsite treatment for each project in its Annual Report. Any equivalent offsite treatment that does not include construction of stormwater

treatment measures must be approved by the Executive Officer based on the criteria set forth in this Order. This interim alternative compliance clause will be void when the Regional Board approves the alternative compliance program described in Provision C.3.g.i-vi, above.

h. Alternative Certification of Adherence to Design Criteria for Stormwater Treatment Measures:

In lieu of conducting detailed review to verify the adequacy of measures required pursuant to Provisions C.3.d, a Discharger may elect to accept a signed certification from a Civil Engineer or a Licensed Architect or Landscape Architect registered in the State of California, or another Discharger that has overlapping jurisdictional project permitting authority, that the plan meets the criteria established herein. The Discharger should verify that each certifying person has been trained on treatment measures design for water quality not more than three years prior to the signature date, and that each certifying person understands the groundwater protection principles applicable to the project site (see Provision C.3.i, Limitations on Use of Infiltration Treatment Measures). Training conducted by an organization with stormwater treatment measure design expertise (e.g., a university, American Society of Civil Engineers, American Society of Landscape Architects, American Public Works Association, or the California Water Environment Association) may be considered qualifying.

i. Limitations on Use of Infiltration Treatment Measures - Infiltration and Groundwater Protection:

In order to protect groundwater from pollutants that may be present in urban runoff, treatment measures that function primarily as infiltration devices (such as infiltration basins and infiltration trenches not deeper than their maximum width) shall meet, at a minimum, the following conditions:

i. Pollution prevention and source control measures shall be implemented at a level appropriate to protect groundwater quality at sites where infiltration devices are to be used;

ii. Use of infiltration devices shall not cause or contribute to degradation of groundwater water quality objectives;

iii. Infiltration devices shall be adequately maintained to maximize pollutant removal capabilities;

iv. The vertical distance from the base of any infiltration device to the seasonal high groundwater mark shall be at least 10 feet. Note that some locations within the Dischargers' jurisdiction are characterized by highly porous soils and/or a high groundwater table; in these areas, treatment measures approvals should be subject to a higher level of analysis (e.g., considering the potential for pollutants such as on-site chemical use, the level of pretreatment to be achieved, and similar factors);

v. Unless stormwater is first treated by a means other than infiltration, infiltration devices shall not be recommended as treatment measures for areas of industrial or light industrial activity; areas subject to high vehicular traffic (25,000 or greater average daily traffic on main roadway or 15,000 or more average daily traffic on any intersecting roadway); automotive repair shops; car washes; fleet storage areas (bus, truck, etc.); nurseries; and other high threat to water quality land uses and activities as designated by each Discharger; and,

vi. Infiltration devices shall be located a minimum of 100 feet horizontally from any known water supply wells.

j. Site Design Measures Guidance and Standards Development:

i. The Dischargers shall review their local design standards and guidance for opportunities to make revisions that would result in reduced impacts to water quality and beneficial uses of waters. In this event, the Dischargers shall make any such revisions and implement the updated standards and guidance, as necessary.

Areas of site design that may be appropriate to address include the following, which are offered as examples:

1. Minimize land disturbance;
2. Minimize impervious surfaces (e.g., roadway width, driveway area, and parking lot area), especially directly connected impervious areas;
3. Minimum-impact street design standards for new development and redevelopment, including typical specifications (e.g., neo-traditional street design standards and/or street standards recently revised in other cities, including Portland, Oregon, and Vancouver, British Columbia);
4. Minimum-impact parking lot design standards, including parking space maximization within a given area, use of landscaping as a stormwater drainage feature, use of pervious pavements, and parking maxima;
5. Clustering of structures and pavement;
6. Typical specifications or "acceptable design" guidelines for lot-level design measures, including:
   - Disconnected roof downspouts to splash blocks or "bubble-ups;"
   - Alternate driveway standards (e.g., wheelways, unit pavers, or other pervious pavements); and,
   - Microdetention, including landscape detention and use of cisterns (may also be considered treatment measures);
7. Preservation of high-quality open space;
8. Maintenance and/or restoration of riparian areas and wetlands as project amenities, including establishing vegetated buffer zones to reduce runoff into waterways, allow for stream channel change as a stream's contributing watershed urbanizes, and otherwise mitigate the effects of urban runoff on waters and beneficial uses of waters (may also be considered treatment measures); and,
9. Incorporation of supplemental controls to minimize changes in the volume, flow rate, timing, and duration of runoff, for a given precipitation event or events. These changes include cumulative hydromodification caused by site development. Measures may include landscape-based measures or other features to reduce the velocity of, detain, and/or infiltrate stormwater runoff (may also be considered treatment measures).

ii. The standards and guidance review shall be completed according to the schedule below. A summary of review, revision, and implementation status shall be submitted for acceptance by the Executive Officer and reported in the Dischargers' Annual Reports, beginning with the Annual Report due September 15, 2005.

1. No later than **August 15, 2003**: The Dischargers shall submit a detailed workplan and schedule for completion of the review of standards and guidelines, any proposed revisions thereto and any implementation of revised standards and guidance;
2. No later than **November 15, 2004**: The Dischargers shall submit a draft review and analysis of local standards and guidance, opportunities for revision, and any proposed revised standards and guidance; and,
3. No later than **November 15, 2005**: The Dischargers shall incorporate any revised standards and guidance into their local approval processes and shall fully implement the revised standards and guidance.

k. Source Control Measures Guidance Development:

The Dischargers shall, as part of their continuous improvement process, submit enhanced new development and significant redevelopment Performance Standards that summarize source control requirements for such projects to limit pollutant generation, discharge, and runoff, to the maximum extent practicable.

Examples of source control measures may include the following, which are offered as examples:

i. Indoor mat/equipment wash racks for restaurants, or covered outdoor wash racks plumbed to the sanitary sewer;

ii. Covered trash and food compactor enclosures with a sanitary sewer connection for dumpster drips and designed such that run-on to trash enclosure areas is avoided;

iii. Sanitary sewer drains for swimming pools;

iv. Sanitary drained outdoor covered wash areas for vehicles, equipment, and accessories;

v. Sanitary sewer drain connections to take fire sprinkler test water;

vi. Storm drain system stenciling;

vii. Landscaping that minimizes irrigation and runoff, promotes surface infiltration where appropriate, minimizes the use of pesticides and fertilizers, and where feasible removes pollutants from stormwater runoff; and,

viii. Appropriate covers, drains, and storage precautions for outdoor material storage areas, loading docks, repair/maintenance bays, and fueling areas.

A model enhanced new development and significant redevelopment source control Performance Standard and proposed workplan for its implementation shall be submitted by **August 15, 2004**. Implementation shall begin no later than **February 15, 2005**, and the status shall thereafter be reported in the Dischargers' Annual Reports, beginning with the Annual Report due **September 15, 2005**, which shall also provide appropriate detail on projects reflecting the application of the enhanced Performance Standards consistent with Provision C.3.b, above.

l. Update General Plans:

If necessary (and only to the extent which is necessary) in order to be able to require implementation of the measures required by Provision C.3 for applicable development projects, at the next scheduled update/revision of its General Plan, each Discharger shall confirm that it has incorporated water quality and watershed protection principles and policies into its General Plan or equivalent plan. These principles and policies shall be designed to protect natural water bodies, reduce impervious land coverage, slow runoff, and where feasible, maximize opportunities for infiltration of rainwater into soil. Such water quality and watershed protection principles and policies may include the following, which are offered as examples:

i. Minimize the amount of impervious surfaces and directly connected impervious surfaces in areas of new development and redevelopment and where feasible maximize on-site infiltration of runoff;

ii. Implement pollution prevention methods supplemented by pollutant source controls and treatment. Use small collection strategies located at, or as close as possible to, the source (i.e., the point where water initially meets the ground) to minimize the transport of urban runoff and pollutants offsite and into a municipal separate storm sewer system;

iii. Preserve, and where possible, create or restore areas that provide important water quality benefits, such as riparian corridors, wetlands, and buffer zones. Encourage land acquisition and/or conservation easement acquisition of such areas;

iv. Limit disturbances of natural water bodies and natural drainage systems caused by development including roads, highways, and bridges;

v. Prior to making land use decisions, utilize methods available to estimate increases in pollutant loads and flows resulting from projected future development. Require incorporation of structural and non-structural treatment measures to mitigate the projected increases in pollutant loads and flows;

vi. Avoid development of areas that are particularly susceptible to erosion and sediment loss; or establish development guidance that identifies these areas and protects them from erosion and sediment loss; and,

vii. Reduce pollutants associated with vehicles and increased traffic resulting from development.

If amendments of General Plans are determined to be legally necessary to allow for implementation of any aspect of Provision C.3, such amendments shall occur by the implementation date of the corresponding component of the Provision. If legally necessary General Plan amendments cannot occur by the implementation date because of CEQA requirements or other constraints imposed by the laws applicable to amending General Plans, the Dischargers shall report this to the Executive Officer as soon as possible, and no later than in the Annual Report due more than six months in advance of the implementation date. Should changes to implementation dates to enable a Discharger to comply with CEQA and General Plan legal requirements be necessary, the Dischargers shall recommend a new implementation date for approval by the Regional Board.

m. Water Quality Review Processes:

When Dischargers conduct environmental review of projects in their jurisdictions, the Dischargers shall evaluate water quality effects and identify appropriate mitigation measures. This requirement shall be implemented by **May 15, 2004**. Questions that evaluate increased pollutants and flows from the proposed project include the following, which are offered as examples:

i. Would the proposed project result in an increase in pollutant discharges to receiving waters? Consider water quality parameters such as temperature, dissolved oxygen, turbidity and other typical stormwater pollutants (e.g., heavy metals, pathogens, petroleum derivatives, synthetic organics, sediment, nutrients, oxygen-demanding substances, and trash).

ii. Would the proposed project result in significant alteration of receiving water quality during or following construction?

iii. Would the proposed project result in increased impervious surfaces and associated increased runoff?

iv. Would the proposed project create a significant adverse environmental impact to drainage patterns due to changes in runoff flow rates or volumes?

v. Would the proposed project result in increased erosion in its watershed?

vi. Is the project tributary to an already impaired water body, as listed on the Clean Water Act Section 303(d) list? If so, will it result in an increase in any pollutant for which the water body is already impaired?

vii. Would the proposed project have a potentially significant environmental impact on surface water quality, to marine, fresh, or wetland waters?

viii. Would the proposed project have a potentially significant adverse impact on ground water quality?

ix. Will the proposed project cause or contribute to an exceedance of applicable surface or groundwater receiving water quality objectives or degradation of beneficial uses?

x. Will the project impact aquatic, wetland, or riparian habitat?

n. Reporting:

The Dischargers shall demonstrate compliance with the requirements of Provision C.3 by providing in their Annual Reports the information described in Table 1, beginning with the dates shown in Table 1 and continuing thereafter. In addition, the following information shall be collected for annual report submittal, beginning upon the date of adoption of this Order, unless otherwise specified below.

i. For all new development and Significant Redevelopment projects which meet the Group 1 or Group 2 definitions in Provision C.3.c, collect and report the name or other identifier, type of project (using the categories in Provision C.3.c), site acreage or square footage, and square footage of new impervious surface.

ii. For projects that must implement treatment measures, report which treatment measures were used and numeric-sizing criteria employed, the O&M responsibility mechanism

including responsible party, site design measures used, and source control measures required. This reporting shall begin in the Annual Report following the implementation date specified in Provision C.3.c. This information shall also be reported to the appropriate local vector control district, with additional information of access provisions for vector control district staff.

The Dischargers may utilize their Annual Reports to highlight their budget constraints and suggest reprioritization of any Program activities in order to achieve the most cost effective overall Program.

o. Implementation Schedule:

The Dischargers shall implement the requirements of Provisions C.3.b through C.3.n according to the schedule in Table 2.

I, Loretta K. Barsamian, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on February 19, 2003.

Loretta K. Barsamian
Executive Officer

ATTACHMENTS - Table 1: Summary of Annual and One-Time Reporting Requirements
Table 2: Implementation Schedule
Location and Political Jurisdiction Map
Basin Watersheds Map

Table 1: Summary of Annual and One-Time Reporting Requirements

Provision	Information to Report	Date
C.3.b *Project Approval Process*	List of any modifications made to development project approval process	2004 & 2005 Annual Reports
	Modification of project review processes completed	Feb. 15, 2005
C.3.c.iii	Optional: Propose an Alternative Group 2 Project definition	No deadline
C.3.e *O & M*	Details of O&M verification program: organizational structure, evaluation, proposed improvements, list/# of inspections and follow-up	Beginning with 2005 Annual Report
C.3.f *Peak Runoff Limitation*	Submit a detailed workplan and schedule	Feb. 15, 2004
	Submit literature review	Feb. 15, 2004
	Submit draft Hydrograph Modification Management Plan (HMP)	Nov. 15, 2004
	Submit final HMP for Regional Board approval	May 15, 2005
C.3.g *Alternative Compliance*	Name and location of alternative project or exemption; Project type and size; Area or percent impervious surface; Reason for granting the alternative project or exemption; Terms of the alternative project or exemption; The stormwater treatment project or regional project receiving the benefit, and the date of completion of the project.	In each Annual Report; Begin the year an alternative project granted
C.3.h *Alternate Certification*	List the projects certified by someone other than a Discharger employee	In each Annual Report
C.3.j *Site Design Guidance*	Summarize the status of review, revision, and implementation of Site Design Measures Guidance and standards	In each Annual Report
	Submit workplan and schedule for revision of guidance	August 15, 2003
	Submit draft proposal of revised standards and guidance	Nov. 15, 2004
	Summarize how any revisions to site design standards and/or guidance have been incorporated into local approval process	Beginning with 2005 Annual Report
C.3.k *Source Control*	Submit draft conditions of approval document for source control measures	August 15, 2004
	Summarize how any revisions to source control measures guidance document have been implemented	Beginning with 2005 Annual Report
C.3.l *General Plan*	Summarize any revisions to General Plans that direct land-use decisions and require implementation of consistent water quality protection measures for development projects	In Annual Reports
C.3.n *Reporting*	List new development and redevelopment projects by name, type of project (using the categories in Provision C.3.c.), site acreage or square footage, square footage of new impervious surface. Where applicable, report treatment measures and numeric sizing criteria used, O&M responsibility mechanism, site design measures used, and source control measures required	In each Annual Report following implementation

Table 2: Implementation Schedule

Provision	Action	Implementation Date
C.3.b	Modify development project approval process as needed	February 15, 2005
C.3.c *Project Categories*	Require stormwater treatment measures at Group 1 Projects	February 15, 2005
	Require stormwater treatment measures at Group 2 Projects in addition to Group 1 Projects	August 15, 2006
	Optional: Propose an Alternative Group 2 Project definition	No deadline
C.3.e *O & M*	Implement an O&M verification program for Group 1 Projects	July 1, 2004
	Begin reporting on O&M verification program in Annual Report	Annually, beginning with Annual Report to be submitted September 2005
	Vector Control Plan	June 1, 2004
C.3.f *Peak Runoff Limitation*	Submit a detailed workplan and schedule	February 15, 2004
	Submit literature review	February 15, 2004
	Submit draft HMP	November 15, 2004
	Submit final HMP for Regional Board approval	May 15, 2005
	Implement HMP	Following Regional Board approval
C.3.g *Alternative Compliance*	Report on any alternative project or exemption(s) granted by the Discharger in Annual Report, due September of each year	Begin the year an alternative project granted
C.3.j *Site Design*	Submit workplan and schedule for completion of review, revision, and implementation of design standards and guidance	August 15, 2003
	Submit draft proposal of revised standards and guidance	Nov. 15, 2004
	Incorporate revisions into local process and fully implement site design standards and guidance	Nov. 15, 2005
C.3.k *Source Control*	Submit draft conditions of approval document for source control measures	August 15, 2004
	Implement source control measures guidance document	February 15, 2005
C.3.l *General Plans*	Confirm that any water quality and watershed protection principles and policies necessary to implement measures required by Provision C.3. for applicable development projects have been incorporated into General Plan or equivalent plan	By Implementation Date of corresponding action
C.3.m	Revise Environmental Review Processes as needed to evaluate water quality impacts of stormwater runoff from new development and significant redevelopment	May 15, 2004
C.3.n *Reporting*	See Table 1	See Table 1

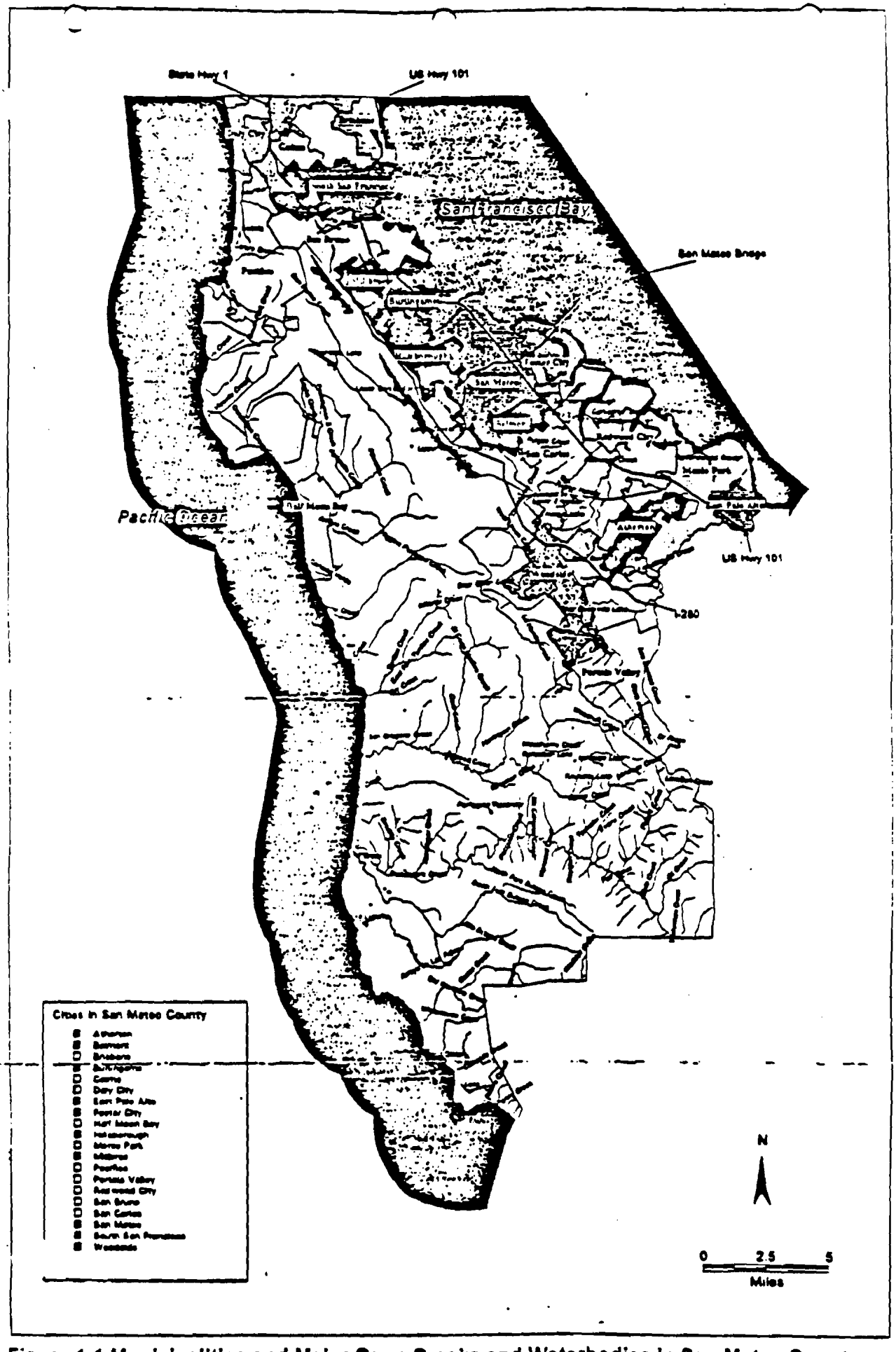

Figure 1-1 Municipalities and Major Open Creeks and Waterbodies in San Mateo County

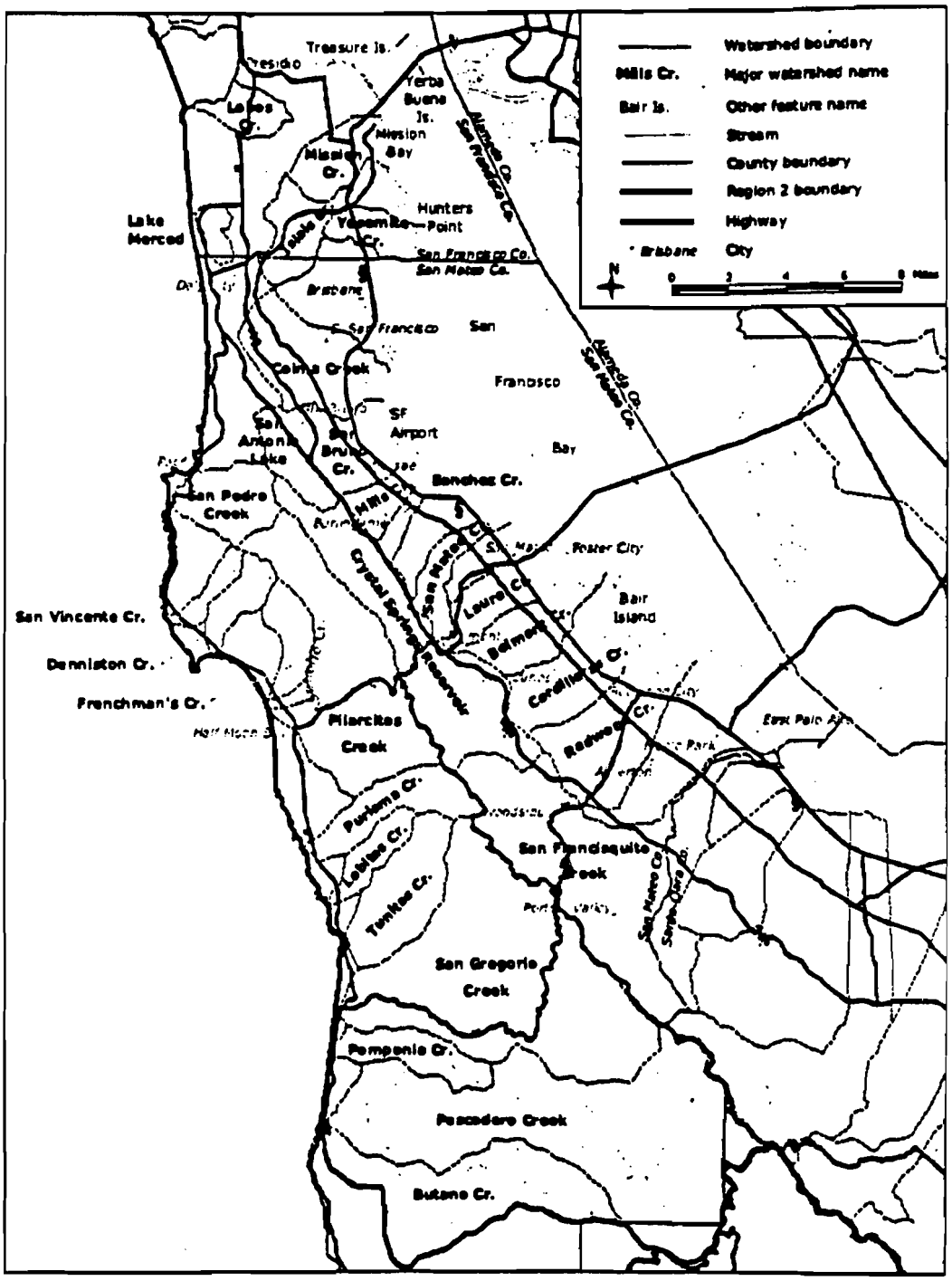

Figure III-5. San Francisco and San Mateo Significant Watersheds